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REVIEW

Gurevich, Naomi. 2004. *Lenition and contrast: The functional consequences of certain phonetically conditioned sound changes.* (*Outstanding Dissertations in Linguistics* series.) New York and London: Routledge. ISBN 0-415-97099-7.

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1. Introduction¹

This book is a version of Naomi Gurevich's PhD thesis (which she completed at the University of Illinois at Urbana-Champaign in 2003) published in Routledge's Outstanding Dissertations in Linguistics series. It deals with the role of lenition processes in the neutralization of contrast, bridging a gap in the literature. On the basis of her findings, the author claims that lenition processes do not neutralize contrast. In a crosslinguistic study, Gurevich investigates 230 lenition processes and finds that 212 of them maintain contrast. Therefore, the role of lenition in neutralization appears insignificant and marginal. In answering the research question, Gurevich states that lenition is a contrast-friendly process. This statement sounds rather radical but seems to receive a great deal of support from the data analyzed by Gurevich. Nevertheless, a number of highly relevant phonological processes in Russian, Spanish and English have not been considered by Gurevich at all, whilst their relatively high occurrence in the said languages might undermine the validity of the above statement.² Prior to a discussion of the counterexamples to the book's findings, however, the key notions of contrast and neutralization will be briefly outlined. The reasons for doing so are brevity of the presentation in the book and lack of contextualization thereof.

Contrast, sometimes referred to as opposition, denotes a situation where two (or more) segments occur in the same environment, producing different meanings, where the two (or more) contrasting segments must be assigned to two (or more) contrasting

¹ We are grateful to Katarzyna Dziubalska-Kołaczyk for her unfailing encouragement and invaluable comments as well as to the participants of her PhD seminar where the idea of the review came into being. We would very much like to acknowledge the most careful editing and helpful comments of Linda Shockey on an earlier draft of this review. We would also like to thank the two anonymous *PSiCL* reviewers whose insights led to substantial improvements of both form and substance. All remaining errors are our own.

² Let alone an investigation of languages less accessible than English, Spanish and Russian, as one of the two anonymous reviewers has pointed out.

phonemes.³ For instance, the initial segments of English *fat* and *vat* belong to different phonemes, thus exhibiting contrast. For a more elaborate account of contrast, cf. Labov (1994) who, in addition to the phonetic context, employs the notions of distribution, predictability and the native speaker's sensitivity to tokens of the same type. For Gurevich, the term contrast means "lexical distinction" (p. 5) or "meaning distinctions" (p. 6). It must be clarified, however, in what sense Gurevich employs the term "neutralization", since she puts this notion under close scrutiny without references to linguistic approaches.

Traditionally, neutralization of contrast represents the disappearance, in a particular environment, of a contrast maintained in other environments. Carr's (2008: 110) definition exemplifies neutralization of contrast as follows

A phonological contrast is said to be neutralized in a specific context if the contrast is not attested in that context. For instance, there is a contrast between /t/ and /d/ in many varieties of American English, as in *tin* vs. *din*. But the contrast is frequently neutralized intervocalically in the foot internal position, as in *bedding* vs. *betting*, both typically pronounced [bɛrɪŋ]; the /t/ and /d/ contrast is neutralized via a postulated process of flapping, whereby either phoneme is realized as a tap (flap) in this context.

In her book, Gurevich follows the classical understanding of neutralization, i.e. as between sounds which represent different phonemes, occurring in the same context

if more than one phoneme is represented by the same sound, there is an obliteration of the distinction between the phonemes in question [...] sound substitutions where a phoneme is replaced by a sound that is either phonemic in the language or an allophone of another phoneme, may neutralize contrast between phonemes (p. 4)

More importantly, the product of neutralization is a segment which appears in the position of neutralization and may assume either a distinct or a similar phonetic form. Under the classical structuralist view, the segment is identified with one of the segments contrasting elsewhere. In this framework, multiple phonemic forms are neutralized to a single phonetic form, whereas not all phonemic forms fall together with another phoneme. As a result, the neutralized phoneme either survives or disappears from the language. Unfortunately, Gurevich fails to present her own view on the status of the neutralized phoneme. This leaves the reader in doubt as to whether she follows the classical, structuralist approach in treating the neutralized phoneme as two distinct phonemes,

³ The notion of contrast can be used in two senses, either as the paradigmatic relation between segments which differentiate the meaning, or as the syntagmatic relation between the syllables varying in stress, pitch, tone etc. The Prague School of phonology distinguishes between the latter (meaning contrast) and the former (meaning opposition), whereas most of the American Structuralists do not make any such distinction, using contrast in both senses (Trask 1996).

or if she falls in line with the American Structuralists (e.g. Bloomfield) in viewing the neutralized phoneme as an independently occurring phoneme, or whether she views it as an archiphoneme in the spirit of the Prague School (Trubetzkoy in particular) (Anderson 1985). Instead, Gurevich draws a distinction between phonetic and phonological neutralization, illustrating the operation of phonetic neutralization in the following way (p. 4–5):

An example of a process that results in phonetic neutralization is the word-final devoicing of b in Yakut (§ 3. 149):

(1.4.) Final devoicing of b in Yakut (Krueger 1962: 56):

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a. saba 'his thread' sap 'thread'
b. tabar 'he hits' tap- 'to hit'
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Since both b and p are phonemic in Yakut, the word-final substitution of b with p results in the phonetic neutralization between these two phonemes

Phonological neutralization, on the other hand, is demonstrated as follows (p. 5):

An example of a process that leads to phonological neutralization is the spirantization of t in Nez Perce (§ 3.88):

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(1.5.) t → s/_n, _w in Nez Perce (Aoki 1970: 39):
a. ['ju²t] 'poor, pitiful' ['ju²sne] 'poor' (object case)
b. [?oj'la:qswa] 'six' (of men)
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The substitution of s for t in certain contexts obliterates the phonetic distinction between these two sounds, both of which are phonemic, because both surface as s. Since in Nez Perce phonemic s could also occur in _n and _w environments, there is no way to determine which phoneme is represented by a surface s in clusters such as sn and sw. This results in phonological neutralization because the loss of phonetic contrast between s and t leads to a possible obliteration of meaning distinctions between words.

In other words, the former is context-dependent and has the potential of neutralizing the contrast but does not necessarily use it, whereas the latter is absolute, context-independent and obliterates the contrast, leading to homophony (e.g., *kot* 'cat' vs. *kod* 'postal code' in Polish). Gurevich summarizes the distinction in the following way: "If a sound represents more than one phoneme in a language there is *phonetic neutralization*.

⁴ This shortcoming of the book was in fact identified by one of the two anonymous reviewers who expressed curiosity whether for Gurevich the neutralized phoneme survives (e.g. in Celtic languages) or disappears from the language as in diachronic lenition (e.g. lenition of voiceless stops which first became voiced and then approximants in the change from Latin into Spanish).

Phonetic neutralization that results in confusion between phonemes is *phonological neutralization*" (p. 5). The reason for making this distinction is outlined as follows (p. 13):

In phonology [sic] literature phonetic neutralization is often synonymous with phonological neutralization, where if the phonetic distinction between the phonemes is obliterated the default assumption is that distinction between words will also be lost. The present study, however, shows that phonological neutralization is not necessarily the outcome of phonetic neutralization.

In her cross-linguistic study, Gurevich investigates a set of 153 languages. The set comes from Kirchner (1998), who, in turn, based his database on the one compiled by Lavoie (1996). Additionally, Gurevich consults primary sources in terms of the grammars of the investigated languages. Unlike Kirchner (1998), who seeks a unified phonetic source of the generally understood sound change, or Lavoie (1996), who focuses on sonority, effort and number of articulatory gestures, Gurevich pursues the research question of whether lenition processes have specific consequences for the grammatical system of a given language. As far as the methodology of the study is concerned, Gurevich uses the list of lenition processes from Kirchner (1998). Next, she identifies the processes in the languages. Then, she classifies each process according to parameters such as general information about the language and its affiliation, the outline of the sound inventories (both phonetic and phonemic, if the data allow), a categorization of the process in descriptive terms (spirantization, voicing, etc.) and a categorization of the process in functional terms (contrast neutralization/maintenance). Finally, the results are discussed in terms of statistical significance.

Gurevich calculates that 92 per cent of lenition processes are non-neutralizing, whereas the remaining 8 per cent of them are neutralizing to various degrees. Specifically, in her typology of neutralization, Gurevich distinguishes between the following three classes: neutralizing processes (voicing assimilation processes in preconsonantal context encountered in Slavic languages), never-neutralizing (degemination, occlusivization, flapping and voicing), and almost-never-neutralizing (spirantization). This typology appears to be a subtypology (specifying the degree of neutralization) of the typology outlined in the "Introduction", where a distinction between phonetic and phonological neutralization is discussed. Unfortunately, the presentation of the two typologies as well as relations between them seems not quite successful, and, more importantly, they are not used in a consistent fashion. For instance, the results are reported and discussed mainly as phonetic/phonological neutralization, making the typology of neutralizing processes (i.e. always, never- and almost-never-neutralizing) irrelevant. 5 In fact, Gurevich does structure her findings along the degree of neutralization (p. 36); the breakdown of processes by neutralization degree, however, is not included in the overall results she reports.

⁵ This inconsistency has become a point of criticism thanks to one of the anonymous reviewers.

2. The shortcomings of the book

Undoubtedly, the book is a significant contribution to past and current debates on phonological processes, with special reference to lenition, which appears to be a vexed issue in phonology. Gurevich directly addresses the issue of lenition processes in a crosslinguistic study. Another merit consists in the clear and explicit formulation of the claim that lenition does not necessarily obliterate contrast. Specifically, 92 per cent of processes in 153 investigated languages maintain it. A number of shortcomings, however, are discussed below.

2.1. Lack of Gurevich's own definition of lenition

Gurevich defines lenition processes as phonetically grounded processes, i.e. determined by articulatory and auditory phonetics. Unfortunately, the author fails to provide her own definition of lenition. She presents the phenomenon of lenition itself following Kirchner (1998): "lenition [...] or WEAKENING, is a cover term for a variety of both synchronic and diachronic changes" (p. 6). Gurevich admits that "[t]here are no clear guidelines in the field for what exactly constitutes lenition [...] [and a]greement on the motivation behind lenition processes is also lacking" (p. 6), but makes no attempt at defining lenition. As far as the motivation is concerned, the factors triggering lenition have actually been widely identified as changes towards ease of production and reductions in the degree of articulatory complexity (e.g. Whitney 1878[1971]; Kirchner 1998). However, Gurevich is correct in suggesting that there are numerous controversies surrounding the definition of lenition. For instance, Trask (1996: 201) defined lenition in the following, slightly vague, manner:

([A]lso weakening). Any phonological process in which a segment becomes either less strongly occluded or more sonorous, such as [k]-[x], [x]-[h] or [k]-[g]. Often the term is extended to various other processes, such as loss of aspiration, shortening of long segments and monophthongization of diphthongs, which represent 'weakening' in some intuitive sense.

The above definition implies that the criteria for lenition/fortition are selected in an intuitive way and fail to receive a fully-fledged specification. This implication extends to the whole traditional approach to process typology which incorporates the strength of a sound and the force of articulation as the criteria for lenition/fortition. Current phonological theories, whether functional or formal, stipulate the typology on the basis of an automatic, indiscriminate operational procedure: if a segment is deleted, it is lenition; if a segment is added, it is fortition (this view is held e.g. by linguists affiliated with Natural Phonology [NP]). Such a treatment fails to account for the mental reality of processes (Donegan and Stampe 1979). Dziubalska-Kołaczyk (2006) expresses concern about the lack of explicit specification of lenition/fortition in modern Natural Phonol-

ogy and in phonology in general. The question of criteria which classify a given process as fortition or lenition is still to be answered. A more fine-grained view than the one presented by NP is offered by Hyman (1975): a segment X is said to be weaker than a segment Y if Y goes through an X stage on its way to zero. This attempt, however, does not explicitly consider phonetic context, which is of prime importance in the notorious case of spirantization. The state of the art regarding what underlies the phenomenon of lenition is outlined by Szigetvári (2008) who rightly concludes that it cannot be discussed without a set of contexts where it is (or isn't) natural to occur. This is why a coherent definition of lenition would be much appreciated, and lack of it in Gurevich's book is a deplorable fact.

2.2. Lack of selectional criteria for phonological processes

In the section "State of the field", Gurevich reviews the literature on lenition, but it is not clear what criteria she employs for her selection of phonological theories. The review is limited to Generative Grammar and Optimality Theory, whereas other, more functionally-oriented phonological theories, are not mentioned. A reader could get the erroneous impression that OT is the sole theory in phonology that has discussed lenition processes or even that it has invented them. In fact, the history of phonological processes is much longer, as they have provoked much interest within linguistic science since its inception. The study of phonological processes can be traced back to the Sanskrit grammarians several centuries B.C. (Sharma 1987, 1990). The 19th century witnessed a genuine peak of interest in phonological processes. This interest stemmed primarily from the advent of diachronic studies. The first formalized approaches to process typology were those of Grimm (1918), Bopp (1863), and Curtius (1856–1862). These scholars pioneered the field of process typology and commenced a systematic analysis of phonological processes in terms of types. In their works, the following process types are recognized: assimilation, dissimilation, absorption, epenthesis, metathesis, haplology, syncope and apocope (Luschützky 1997). A number of issues related to process typology were taken up and discussed at length in the 20th century. The modern studies owe much to the advent of generative grammar (Ferguson 1978). Yet, regardless of the formal or a functional view on language which a given theory represents, phonological processes (with special reference to lenition) are descriptive categories, analyzed using an array of theoretical devices such as rules, constraints, preferences or frequency statements. Nowadays, the nature and typology of phonological processes are a major interest of Natural Phonology (Stampe 1973; Donegan and Stampe 1979; Dressler 1985), Modern Natural Phonology (Dziubalska-Kołaczyk 2003, 2004), Optimality Theory (Boersma 1998; Kirchner 1998; Jun 2004) and, more recently, Generative Phonology (Brandão de Carvalho et al. 2008).

2.3. Problems with Gurevich's functional considerations

In discussing the non-neutralizing role of lenition, Gurevich specifies that it operates along functional lines by which she understands "meaning and how it is affected by sound substitutions, which may either obliterate meaning distinctions or maintain them" (p. 4). She also makes the following claim (p. 6):

[lenition] processes that can be attributed to biological, rather than phonological, factors are consequently constrained by the system of contrasts in a language [... while] processes that can be explained by what is common among humans (i.e., the properties of the vocal organs) are constrained by functional considerations which are language specific.

The notion and implication of the term "functional considerations" appear somewhat problematic. The above quote seems to be too much of an overgeneralization. Indeed, the vocal tract and its organs are the same regardless of one's language. Gurevich overestimates the role of biological factors, since it is phonology that decides if a given process has a given function, for instance, whether it is neutralizing or not (Dziubalska-Kołaczyk 2006). A mere look at the vocal organs cannot really inform one about the function of a process. Moreover, phonological processes are not automatic, as is suggested by giving them a purely biological motivation; otherwise, all languages would be the same. Besides, the book's concluding chapter introduces a somewhat different understanding of functional considerations than the author presents in her "Introduction". A subtle shift from functional to grammar-internal terms can be observed. It also seems that, in the light of the obtained results of the study, lenition processes are not functional (the function being to communicate) but are just phonetically motivated, without a preassigned function. Thus, the notion of functional considerations seems to lack a wider, phonological framework.

2.4. Lack of account of the 8 per cent of neutralizing processes and the validity of the book's conclusion

In the light of the study's conclusion that 92 per cent of processes maintain contrast, a valid question concerning the status of the remaining 8 per cent might be posed. The book would undoubtedly benefit from an analysis of those. In particular, an attempt to investigate the distribution of processes (either neutralizing or non-neutralizing) across languages would be welcome. One could wonder whether there are languages whose inventory of processes derives exclusively from the pool of the well-behaving 92 per cent.

⁶ This question has been actually posed by one of the two anonymous reviewers: "unless Gurevich comes up with particular analyses of the misbehaving 8% that show that in fact they are well-behaving, this conclusion is not supported by the data. A tendency, even strong, does not define a property of natural language".

The study's conclusion that lenition is contrast-friendly appears to be a rather strong statement which raises doubts. These doubts are substantiated by a range of counter-examples from some of the languages that Gurevich analyzes, and are described in subsections 2.4.1–2.4.8 below.

2.4.1. Non-consideration of place-affecting lenition processes

Although the study of lenition conducted by Gurevich is an impressive and meticulous piece of work, the list of lenition processes she uses is not exhaustive. The author includes assimilation, quoting numerous instances of manner and voicing assimilation, but a discussion of place assimilation is missing. Gurevich's selection of assimilation types is not justified in her book. We must ask why assimilation of place was not considered in the study at all. It appears that contrast is not maintained in this particular process. Tem does not exist as a word in English, but the phonemic contrast between /n/ and /m/ is obliterated by assimilation in the phrase ten men. Consequently, the question remains whether place assimilation would affect the overwhelming tendency of lenition failing to neutralize contrast. Since place assimilation is attested in virtually every language allowing for consonant clusters, one would expect the 153 languages to exhibit numerous examples of this process. Unfortunately, Gurevich excludes assimilation of place from her list of lenition processes, despite the fact that ease of articulation, which is a basic criterion for classifying phonological processes as lenition (cf. Stampe 1973), is the primary motivation behind it. In fact, many authors say explicitly that neutralization is inevitable in such cases. Cruttenden (1994: 257), for instance, points out that, in English, the alveolars /t, d, s, z, n, l/ are frequently found in word-final position and, as they are prone to undergo place assimilation, they usually share their place of articulation with the following obstruent. As a consequence, the output [raip peaz] can be the phonetic realization of either ripe pears or right pears, ran quickly and rang quickly can be both pronounced as [ræŋ kwikli], whereas *like cream* and *light cream* are likely to be realized as [lark kri:m]. Yod coalescence also has the potential to produce similar neutralizations, e.g. Paris show vs. parish show, what's your weight vs. watch your weight, etc. Cruttenden (1994: 260) observes that in such cases "the sense of an utterance may be determined by the context".

2.4.2. Non-consideration of other assimilatory processes in Russian

Assimilatory processes obliterating phonological distinctions, which in some cases lead to homophony, are found in Russian as well. Reformatskij (1970) points out that

⁷ One of the reviewers suggests that more subtle analyses of the phenomenon, such as the work by Nolan and others in early volumes of *Laboratory Phonology*, suggest that Cruttenden's analysis masks a great deal that is going on.

in that language homorganic sounds of different manner of articulation, as well as heterorganic consonants of the same manner, have a tendency towards coalescence determined by the second element. Specifically, the sequences of consonants /tt͡s/, /tt͡ʃ/, /tn/, /dn/, /pm/, /bm/, /tl/, /dl/, /tk/, /dk/, and /fs/, when placed between a consonant and a vowel, are realized as the second element of each pair. Importantly, the process applies both within words and at word boundaries. Although, in most instances, the process does not result in phonetic neutralisation, sometimes it does produce pairs of homophones, e.g., $\kappa ochhi u$ 'numb', $\kappa ocmhhi u$ 'bony', both realized phonetically as ['kosnɨj]. It is worth emphasizing that, since $\kappa ochhi u$ and $\kappa ocmhhi u$ are both adjectives, some utterances containing these words are bound to be ambiguous. Even though Reformatskij (1970) refers to the process as "mutual assimilation" (accumunnuehoe взаимодействие), one can also think of the process as deletion of the first segment of each pair.

2.4.3. Problems with Gurevich's analysis of fricativization

A closer look at the other non-neutralizing processes raises a number of questions and doubts. To begin with, Gurevich finds that spirantization is the prime example of almost-never-neutralizing lenition processes, accounting for 72 per cent of the total of non-neutralizing processes. The nature and production of fricatives, when contrasted with those of stops, for example, creates a potential for neutralizing contrast. According to received wisdom in phonetics, stops are easier than fricatives because a ballistic movement is easier than a controlled movement of the articulators. Boersma (1990) quoted the famous metaphor that it is easier to hit a wall than to stop an inch from it (he provides no references). This refers to the different configurations of the vocal tract. Greater precision is required for fricatives than for stops. This phenomenon can be accounted for by laws of aerodynamics. In the case of fricatives, a partial closure is formed which requires some control from the muscles of the tongue to obstruct the turbulent airflow so that friction results.

2.4.4. Non-consideration of /t/ and /d/ flapping in English

The flapping of intervocalic /t/ and /d/ is yet another process that, in Gurevich's opinion, is non-neutralizing, despite the fact that in the phonetic literature one can find evidence to the contrary. Wells (1982: 249) maintains that when an intervocalic /t/ undergoes two processes, namely tapping and T-voicing, "the result may be the neutralization

⁸ An anonymous reviewer points out the existence of an opposite view and provides the source. Meyer-Benfrey (1901) argued that lack of vigorousness to attain the articulator opposite to the tongue (as it is the case of a spirant) is the reverse of the effort-based approach.

of the opposition between /t/ and /d/". Flapping is also involved in the process that changes *winter* into [wīɾə] and *winner* into [wīɾə] in some North American varieties of English. In the former word, the [t] is flapped and the nasal is realized as nasality of the preceding vowel, whereas in the latter, the nasal itself is flapped. Even though the resultant forms are not identical, technically speaking, the distinction between them is so subtle that many native speakers perceive them as homophones.

2.4.5. Non-consideration of glottaling in Cockney

Another neutralizing process omitted by Gurevich is found in Cockney. According to Wells (1982), glottaling, or debuccalization in Gurevich's terminology, which consists in evolving from a voiceless plosive into a glottal stop, neutralizes lexical distinctions in word-final and word-medial position, e.g. *wit*, *wick*, and *whip* can be realized phonetically as [wi?], whereas *lightly* and *likely* can be pronounced as [lar?li].

2.4.6. Non-consideration of /t/ and /d/ deletion in English

Gurevich's analysis of deletion is also controversial. First of all, there are only 17 cases in the corpus, 71 per cent of which are classified as non-neutralising. Astonishingly, the author does not mention consonant elision in English, despite discussing seven different accents of the language. It is a well-known fact that /t, d/ manifest a very strong tendency towards elision in various phonological contexts. Cruttenden (1994) provides a long list of phrases with word-final plosives followed by words beginning with a consonant, where the alveolar plosives are dropped. Importantly, /t/ and /d/ are two of the phonetic realizations of the past tense suffix -ed which tend to be elided in interconsonantal position, e.g. stopped speaking, rubbed gently. Cruttenden (1994) points out that the process removes the phonetic cue of past tense and the loss has to be compensated for by the general context. Unlike Gurevich, Cruttenden finds such cases of consonant deletion neutralizing, and so does Shockey (2003: 39), who maintains that "final /d/ also may have no phonetic correlates when sandwiched between two consonants", as in the phrases They closed my account and misjudged completely which are frequently pronounced as [klozmai...] and [misdat[kəm...].

2.4.7. Non-consideration of /s/ aspiration and deletion in Spanish

Similarly, in her discussion of Andalusian Spanish, Gurevich does not even mention aspiration and deletion of word-final /s/, which is a characteristic feature of this variety of

⁹ One of our reviewers points out the existence of an opposing view (cf. Kelly and Local (1989) or earlier comments from Householder). This, however, is as much of a speculation as the view presented by Wells.

Spanish, nor does she bring up the topic of the deletion of intervocalic /s/ that is widespread throughout the Spanish-speaking world. This comes as a surprise because Hualde (2005: 161) claims that "the weakening of /s/ is one of the most intensively researched phenomena of phonological variation in Spanish". Since word-final /s/ marks plurality, the deletion of the segment obliterates the difference between, for example, las muchachas 'the girls' and la muchacha 'the girl'. Potentially, the process could produce thousands of neutralizations. However, Teschner (1996) explains that in many cases lexical distinctions are maintained due to the presence of a grammatical element that disambiguates the meaning of an utterance, as in the reduced form of mujeres 'women' that is frequently pronounced [mu'xerə], where the last vowel reveals the plurality of the otherwise ungrammatical form. Hualde (2005: 130) draws the reader's attention to the fact that some speakers use a compensatory process that allows them to preserve the contrast between reduced and full forms which consists in producing a more open allophone of the mid vowels /e, o/, or fronting the /a/ before a "silent /s/". However, this strategy is regularly employed only in Eastern Andalusia, whereas in many other regions the neutralization resulting from /s/-deletion seems to be total.

2.4.8. Non-consideration of yeismo and liquid neutralization in Spanish

Moreover, Gurevich does not mention two other common neutralizing processes, namely yeismo and the neutralization of liquids in the coda, both of which are characteristic of Andalusian Spanish, as well as of many other accents of that language. The former process consists in replacing the palatal lateral $/\kappa$ / either with /j/ or with one of its allophones, which renders pairs such as $call\delta$ [ka $^{i}\kappa$ o] 's/he became silent' and $cay\delta$ [ka ^{i}j o] 's/he fell' or pollo [$^{i}po\kappa$ o] 'chicken' and poyo [^{i}poj o] 'stone bench' identical in pronunciation (Navarro 1957; Penny 2000; Hualde 2005). The latter process neutralizes the contrast between /l/ and /r/ before a consonant or in word-final position. Interestingly, pairs such as harto 'full' and alto 'tall' can be realized phonetically either as ['alto] or ['arto], thus the neutralization is variable.

3. Conclusion

As it has been demonstrated, an array of processes from Indo-European languages has not been considered by Gurevich. This is quite surprising given the fact that the processes from the Indo-European family constitute as much as 28 per cent of all the processes analyzed by Gurevich. Furthermore, the non-inclusion of place assimilation processes might skew the statistics she cites, whereas inclusion of the said processes could undermine the strength of the book's key statement about the contrast-friendly nature of lenition. Despite these problems with the data, as well as a number of other, more theoretical shortcomings discussed at length here, the book *Lenition and contrast* by Gure-

vich is a piece of meticulous work which greatly contributes to the current phonological debate on lenition (e.g. Bauer 2008; Brandão de Carvalho et al. 2008), encouraging the revision of our understanding of lenition processes and calling for more insights into their nature and typology.

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